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Georgia Power
the southern electric system

L. T. Gucwa
Manager Nuclear Safety
and Licensing

SL-957
2819N

July 28, 1986

Director of Nuclear Reactor Regulation
Attention: Mr. D. Muller, Project Director
BWR Project Directorate No. 2
Division of Boiling Water Reactor Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKET 50-366
OPERATING LICENSE NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
RESPONSE TO NRC REQUEST FOR INFORMATION
CONCERNING FRACTURE MECHANICS ANALYSIS,
NUREG-0619 AND GENERIC LETTER 81-11 RESPONSE

Gentlemen:

By letter dated January 21, 1986, the NRC requested that Georgia Power Company (GPC) provide information in response to several questions concerning the fracture mechanics analysis performed for the Hatch Unit 2 reactor pressure vessel feedwater nozzles to achieve compliance of the feedwater system with NRC NUREG-0619, as amended by NRC Generic Letter (GL) 81-11. Enclosure 2 of the January 21, 1986, letter identified the NRC questions. Enclosed herein is General Electric Report No. DRF-137-0010 (Enclosure 1) which responds to the NRC questions concerning the fracture mechanics analysis for Hatch Unit 2 provided by our letter dated September 19, 1984. Please be advised that the subject General Electric report was issued to GPC in proprietary form. Consequently, the enclosed report contains information which the General Electric Company customarily maintains in confidence and withholds from public disclosure. The information has been handled and classified as proprietary to General Electric, as identified in the enclosed affidavit (Enclosure 2). GPC hereby requests that General Electric Report No. DRF-137-0010 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790.

In addition, Enclosure 2 of the NRC's letter of January 21, 1986, requested that GPC "provide within the next six months a schedule for modification of the existing low flow feedwater controller system or for

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submitting additional fracture mechanics analyses and/or inservice inspection results of the nozzles I.D. radii and bores, which indicates that crack growth will be less than one inch during the forty year life of the plant." Enclosure 3 of this letter presents our schedule for investigation and corrective action relative to the Hatch Unit 2 feedwater low flow controller.

Ten copies of each of the enclosures are provided for your convenience.

In a telephone conversation, which occurred on July 18, 1986, with Mr. G. Gears, alternate to the NRC Hatch Licensing Project Manager, GPC staff personnel requested that GPC be granted a 1-week extension to the due date for the submittal of information requested in Enclosure 2 of the NRC letter dated January 21, 1986. The extension would allow GPC time to resolve scheduler and budgetary concerns relative to investigative and corrective actions for the Hatch Unit 2 feedwater low flow controller. Mr. Gears indicated that the 1-week extension to the July 21, 1986, due date was acceptable to the NRC.

If you have any questions in this regard, please contact this office at anytime.

Mr. L. T. Gucwa states that he is authorized to execute this oath on behalf of Georgia Power Company, and that to the best of his knowledge and belief, the facts set forth in this letter are true.

GEORGIA POWER COMPANY

By: L. T. Gucwa
L. T. Gucwa

Sworn to and subscribed before me this 28th day of July 1986.

Notary Public

JAE/mb

Notary Public, Fulton County, Ga
My Commission Expires Oct. 2 1989

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Enclosures: 1. General Electric Report No. DRF-137-0010 (Proprietary)
2. Affidavit for General Electric Report No. DRF-137-0010
3. Schedule for Investigation and Corrective Action

c(w): Georgia Power Company
Mr. J. P. O'Reilly
Mr. J. T. Beckham, Jr.
Mr. H. C. Nix, Jr.
GO-NORMS

U. S. Nuclear Regulatory Commission
Dr. J. N. Grace, Regional Administrator
Senior Resident Inspector

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ENCLOSURE 2

AFFIDAVIT FOR

GENERAL ELECTRIC COMPANY PROPRIETARY

REPORT NO. DRF-137-0010

ENCLOSURE 2

GENERAL ELECTRIC COMPANY

AFFIDAVIT

I, Rudolph Villa, being duly sworn, depose and state as follows:

1. I am Manager, Products Licensing, General Electric Company, and have been delegated the function of reviewing the information described in paragraph 2 which is sought to be withheld and have been authorized to apply for its withholding.

2. The information sought to be withheld is contained in the report entitled "Response to the NRC Questions with Regard to the Hatch 2 Feedwater Nozzle NUREG 0619 Report," June 1986, (DRF 137-0010, SASR 86-38).

3. In designating material as proprietary, General Electric utilizes the definition of proprietary information and trade secrets set forth in the American Law Institute's Restatement of Torts, Section 757. This definition provides:

> "A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.... A substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring information.... Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expanded by him in developing the information; (6) the ease or difficulty with the which the information could be properly acquired or duplicated by others."

4. Some examples of categories of information which fit into the definition of proprietary information are:

   a. Information that disclosed a process, method or apparatus where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;

   b. Information consisting of supporting data and analyses, including test data, relative to a process, method or apparatus, the application of which provide a competitive economic advantage, e.g., by optimization or improved marketability;

c. Information which if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality or licensing of a similar product;

d. Information which reveals cost or price information, production capacities, budget levels or commercial strategies of General Electric, its customers or suppliers;

e. Information which reveals aspects of past, present or future General Electric customer-funded development plans and programs of potential commercial value to General Electric:

f. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection;

g. Information which General Electric must treat as proprietary according to agreements with other parties.

5. Initial approval of proprietary treatment of a document is typically made by the Subsection manager of the originating component, the person who is most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within the Company is limited on a "need to know" basis and such documents are clearly identified as proprietary.

6. The procedure for approval of external release of such a document typically requires review by the Subsection Manager, Project manager, Principal Scientist or other equivalent authority, by the Subsection Manager of the cognizant Marketing function (or delegate) and by the Legal Operation for technical content, competitive effect and determination of the accuracy of the proprietary designation in accordance with the standards enumerated above. Disclosures outside General Electric are generally limited to regulatory bodies, customers and potential customers and their agents, suppliers and licensees then only with appropriate protection by applicable regulatory provisions or proprietary agreements.

7. The document mentioned in paragraph 2 above has been evaluated in accordance with the above criteria and procedures and has been found to contain information which is proprietary and which is customarily held in confidence by General Electric.

8. The information in the document mentioned in paragraph 2 includes significant excerpts from formally issued GE proprietary documents and discloses methodology, supporting test data, and analyses that form a basis for heat transfer calculations and crack growth projections in nuclear power plant nozzles.

ENCLOSURE 2
(Continued)

9. The information to the best of my knowledge and belief has consistently been held in confidence by the General Electric Company, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties have been made pursuant to regulatory provisions of proprietary agreements which provide for maintenance of the information in confidence.

10. The information contained herein is the result of extensive analyses performed at considerable cost to the General Electric Company. The development and verification of these methods, as well as their application and execution cost in excess of $1 million.

STATE OF CALIFORNIA)
COUNTY OF SANTA CLARA) ss:

Rudolph Villa, being duly sworn, deposes and says:

That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 8th day of July, 1986.

Rudolph Villa.

Rudolph Villa
General Electric Company

Subscribed and sworn before me this 8th day of July 1986.

Paula F. Hussey
NOTARY PUBLIC, STATE OF CALIFORNIA

OFFICIAL SEAL
PAULA F HUSSEY
NOTARY PUBLIC - CALIFORNIA
SANTA CLARA COUNTY
My comm. expires JAN 13, 1989

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ENCLOSURE 3

HATCH UNIT 2 FEEDWATER LOW FLOW CONTROLLER - SCHEDULE OF INVESTIGATION AND CORRECTIVE ACTION

Tasks	Schedule
1. Obtain data for securing definite characteristics of low flow feedwater oscillations (dependent on availability of Hatch Unit 2 in startup mode). NOTE: Data are to be collected during startups, shutdowns, and scrams. At this time, the number of low flow events, which will have to be investigated in order to establish a basis for implementing system changes to reduce the low flow oscillations, cannot be determined. Therefore, the amount of time required to complete task no. 1 could be as great as 1 year. The schedule for the completion of the remaining tasks is dependent upon the completion date of task no. 1.	
2. Evaluate low flow feedwater data collected, as well as data pertaining to operation of critical control components and applicable operating procedures, in order to make recommendations directed at reducing oscillations.	
3. Make appropriate changes to the Hatch Unit 2 feedwater system order to in significantly reduce low flow oscillations. Document changes to indicate expected results.	March 1988

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